

(No Model.)

2 Sheets—Sheet 1.

C. H. PERKINS.
HORSESHOE BLANK BAR.

No. 487,056.

Patented Nov. 29, 1892.

Fig. 2.

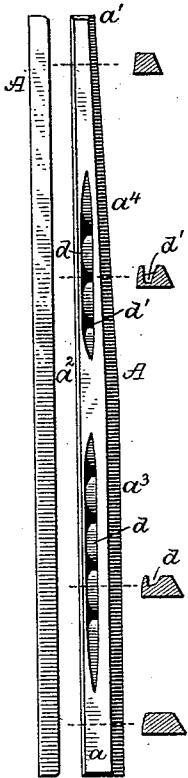


Fig. 1.

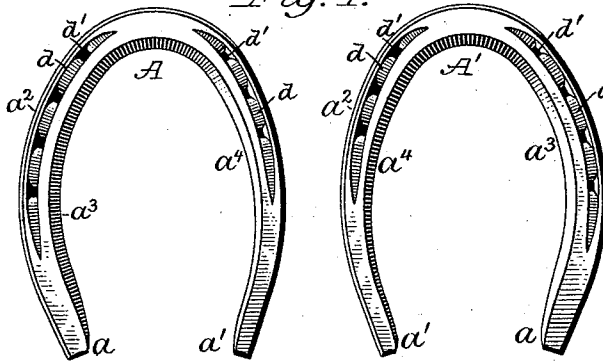


Fig. 3.

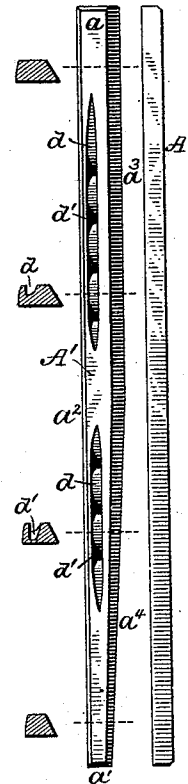


Fig. 7.

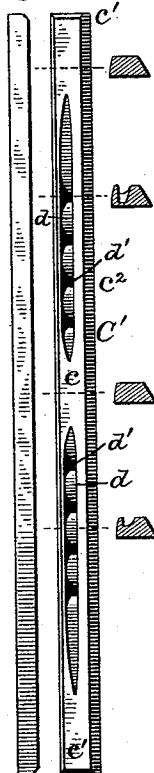


Fig. 5.

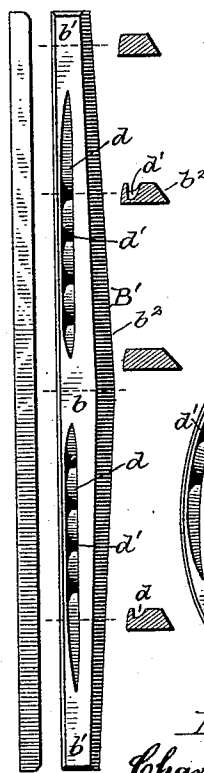


Fig. 6.

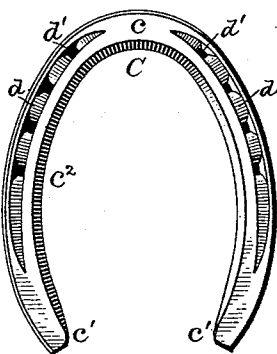
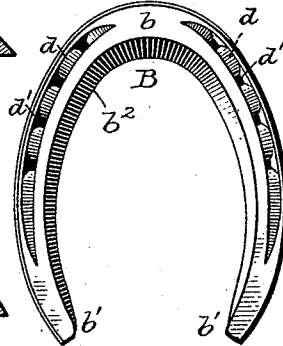


Fig. 4.



Attest:
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Sawell Zittle

Inventor:
Charles Henry Perkins.
By *McClure*
Attorney.

(No Model.)

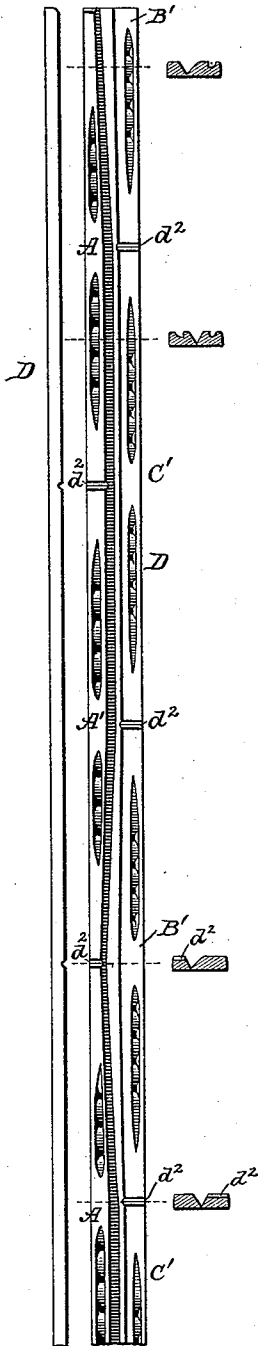
2 Sheets—Sheet 2.

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Fig. 8.

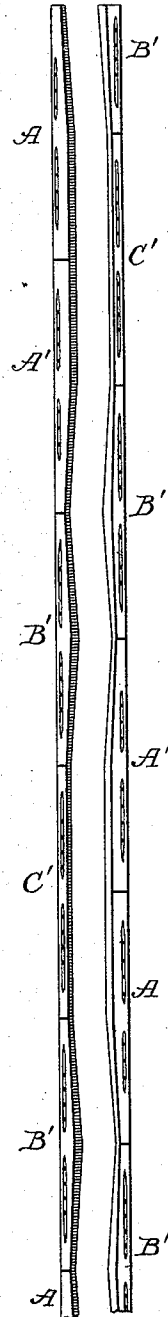


Attest:
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Fig. 9.



Fig. 10.



Inventor:
Charles Henry Perkins.
By *M. C. Wood*
Attorney.

UNITED STATES PATENT OFFICE.

CHARLES HENRY PERKINS, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO
THE RHODE ISLAND PERKINS HORSE SHOE COMPANY, OF JERSEY CITY,
NEW JERSEY.

HORSESHOE-BLANK BAR.

SPECIFICATION forming part of Letters Patent No. 487,056, dated November 29, 1892.

Application filed February 4, 1892. Serial No. 420,266. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY PERKINS, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Horse-shoe-Blank Bars; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description of my invention.

In the manufacture of horseshoes as heretofore conducted various kinds of blank-bars have been devised; but prior to my present invention I know of no instance in which a horseshoe-blank bar has embodied more than one form or variety of blank, it being a characteristic feature of my present invention that my blank-bars are "complex" in that they embody several kinds of blanks.

In accordance with certain recent improvements made by me blank-bars have been produced for use in the manufacture of toe-weighted horseshoes, each blank being uniform in thickness, wide at the center or toe portion, and narrow at the ends or heel portions. In accordance with a still more recent invention of mine, blank-bars have been produced containing blanks for use in the manufacture of side-weighted horseshoes, each blank being uniform in thickness, of uniform width for a portion of its length from one end, and tapered toward the other end, so that one heel portion is narrow and the other wide. These two types of blanks have been produced by me separately in bars containing blanks in two lines or rows and also in single lines. In one form of the double-line toe-weighted blank-bar no waste of metal occurs except at the butts or ends of the bars; but in no way known to me can a double-line side-weighted blank-bar be produced without involving considerable waste of metal between the ends of the pairs of blanks, as well as at the butts of the bars. The peculiar outlines of said two types of blanks preclude any saving of metal by forming both kinds in the same double-line blank-bar, except when in accordance with the main feature of my present invention the several toe-weighted blanks and the several side-weighted blanks are so

proportioned as to the number of each kind in a blank-bar and so arranged with reference to each other in said bar that the metal which as waste would otherwise be present at various points is massed at regular intervals and in such form as to afford a perfect blank for still another but old and well-known form of shoe, which may be a mule-shoe, but is preferably what is known as a "snow-shoe," which is uniform in thickness and practically uniform in width at the heels and toe.

It will now be readily understood that my present invention, broadly stated, consists of a complex blank-bar containing different kinds of blanks, preferably in three forms, respectively, for use in the manufacture of horseshoes of the "side-weighted" and "toe-weighted" types and shoes of still another form, whether said bars be of the double-line or single-line form and whether said bars contain all or only two of said forms of blank. The side-weighted shoes are of necessity "rights" and "lefts;" but the other two kinds involve no such distinction, and therefore the side-weighted blanks, as a rule, will constitute the controlling features in my novel double-line blank-bars. In other words, in one form of my bars the side-weighted blanks occupy one row or line in the bar and they are successively rights and lefts, while the other line is occupied by toe-weighted blanks, alternating with snow-shoe blanks, there being in some of my bars as many side-weighted blanks in an average lot of bars as there are of the other two kinds, and in other forms of my bars there is a less proportion of side-weighted blanks, and in one form of my single-line blank-bars there are no side-weighted blanks.

To more particularly describe my invention, I will refer to the drawings, in which—

Figure 1 illustrates in tread view a pair of side-weighted horseshoes. Figs. 2 and 3 illustrate, respectively, right and left side-weighted blanks in tread view, edge view, and section. Figs. 4 and 5 illustrate a toe-weighted horseshoe and a toe-weighted blank, the latter in tread view, edge view, and section. Figs. 6 and 7 illustrate a snow-shoe and a snow-shoe blank, the latter being shown in

tread view, edge view, and section. Fig. 8 illustrates one of my novel complex blank-bars in side or tread view, edge view, and numerous sections. Fig. 9 illustrates another form of my complex blank-bar. Fig. 10 illustrates single-line complex blank-bars embodying three forms of blank.

The side-weighted shoes of Fig. 1 are designated A and A', and the blanks respectively appropriate thereto are similarly designated in Figs. 2 and 3. It will be seen that each side-weighted blank is wide at one end a and narrow at the other end a' , these two end portions being the heels of the shoe. One edge of the blank a^2 is straight from end to end, and the other edge at a^3 is parallel with the first for a portion of the length of the blank and inclined, as at a^4 , from the wide part to the narrow heel portion a' , the edge $a^3 a^4$ in this instance being quite broadly beveled, as is desirable in most cases, although in some instances said bevel is reduced in width, leaving only so much as is absolutely essential for deeply cutting and defining the longitudinal parting-lines between the blanks in the bar, as will be hereinafter indicated.

Side-weighted blank-bars in various forms have been heretofore devised by me and the same have been disclosed in several applications for Letters Patent.

The toe-weighted shoe B of Fig. 4 has a wide toe b and narrow heels $b' b'$, and these parts are similarly designated in the blank B' of Fig. 5, and the inner edge b^2 of the blank and shoe is widely beveled, although for heavy shoes said bevel is often reduced in width to a minimum.

Toe-weighted blanks and blank-bars in various forms have been heretofore devised by me and disclosed in Letters Patent heretofore issued to me.

The snow-shoe C of Fig. 6 is of an old and well-known form, its toe c and heels $c' c'$ being substantially of the same width, and at the inner edge c^2 there is a narrow bevel, and the snow-shoe blank C', Fig. 7, has its corresponding portions similarly designated. Mule-shoe blanks, being also narrow and quite light, can be substituted for the snow-shoe blanks without departure from certain portions of my invention.

It will be seen from the several edge views that all of the blanks are uniform in thickness from end to end as to the bodies or main portions of the blanks, it being understood that the beveled edges are not herein considered as involving variations in the thickness referred to. It is, however, customary to thicken the heels of snow-shoes by swaging the ends of the blanks. Each of said blanks is shown to be provided with appropriate nail-head scores d and also with nail-head points d' , and it is to be understood that, while it is always desirable to form said scores and points simultaneously with the formation of the blanks, the prime value of my invention will accrue if the blanks are not initially provided with

said scores and points, inasmuch as these may be afterward applied. The shoes A and A', being of the side-weighted variety, the heavy side of each shoe is provided with one more nail-head point than the light side; but in the toe-weighted shoe B and in the snow-shoe C the scores and head-points are alike on both sides.

Now, referring to the novel blank-bar D, it will be seen that it embodies blanks of each of the varieties shown. The side-weighted blanks A and A' occupy one line in said bar and respectively abut with their wide ends together and also with their narrow ends, so that they are grouped in pairs of rights and lefts, any two adjacent blanks constituting a pair. The remaining portion of the bar contains the other two kinds of blanks, the toe-weighted blanks B' alternating with the snow-shoe blanks C', the latter lying opposite the wide portions of each pair of side-weighted blanks A A' and the former in like manner being opposite the tapered ends of each two side-weighted blanks. Between the abutting ends of all the blanks there is a lateral parting-score d^2 for facilitating the separation of the blanks, or if said scores be mere end marks they serve as reliable guides for separating (as by shearing) the blanks in each line after the bar has been divided on the alternating straight and zigzag line defined by the longitudinal groove developed in forming the several bevels at the inner sides of the three kinds of blanks. It will be seen from the several sectional views that the metal on the longitudinal dividing-line is reduced to a thin web, thus facilitating separation, which may be effected in various ways, but preferably by a slitting-machine devised by me and disclosed in my Letters Patent, No. 449,051, dated March 24, 1891. It will be seen that with this novel complex blank-bar no waste of metal is involved, except that which must inevitably occur in butts or stubs at the ends of each bar, and this can be reduced to a minimum by the use of stop-rolls, which in a manner well known may be started, for instance, so as to commence work at one end of a side-weighted blank.

It is not to be understood that my complex blank-bars can be relied upon to afford a full range in sizes of shoes, the rule being that side-weighted blanks of any given size having been duly provided for it follows that the other two forms can only be of such sizes as can be afforded from the remaining metal in the bar—as, for instance, with the bar shown, the side-weighted blanks being of the largest lengths, the snow-shoe blanks will be No. 2's. Inasmuch as I am the first to devise what I have termed a "complex horseshoe-blank bar," as well as the first to so develop the art as to render such bars substantially valuable, it is to be understood that I do not restrict the main feature of my invention to a blank-bar containing the three forms of blanks in

the particular arrangement and proportions illustrated in Fig. 8.

If a larger proportion of toe-weighted shoes is desired, the complex bar should embody blanks arranged as shown in Fig. 9, wherein the side-weighted blanks A A' are isolated in pairs, abutting only with their wide ends, and they are also alternated in position with respect of the edges of the bar, so that between each pair of side-weighted blanks there are two toe-weighted blanks B' B' side by side; but in this instance the proportion of snow-shoe blanks C' to the side-weighted blanks remains as before, they being always restricted in number to one-half the number of the side-weighted blanks.

It will be obvious that the proportion of the toe-weighted blanks may be increased quite indefinitely; but this will generally be undesirable with manufacturers of horseshoes, inasmuch as the main object of my invention is to produce blank-bars containing as many side-weighted blanks as possible and to have the remaining metal embodied in serviceable blanks instead of in the form of waste or scrap; but the bar Fig. 9 would be preferable to the bar Fig. 8 for avoiding too great a proportion of the snow-shoe blanks to the toe-weighted blanks, and also in the fact that whether the bar be of the double-line form or divided into two single-line bars, as shown in Fig. 10, they will constitute valuable stock-bars for such farriers as may prefer to bend their own shoes, because each bar contains a variety of blanks. Should the bar Fig. 8 be divided longitudinally into single-line bars only one of the latter would be complex, and that would contain but two forms, the toe-weighted

and the snow-shoe. The rolls devised by me for producing these double-line complex blank-bars will be made the subject of a separate application for Letters Patent, (see Serial No. 420,455;) but it is obvious that the several single-line complex blank-bars may be developed singly, as by the use of appropriate single-line rolls.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A complex horseshoe-blank bar, substantially as hereinbefore described, containing different forms of blanks for use in the manufacture of horseshoes of different styles or kinds.

2. A complex horseshoe-blank bar, substantially as hereinbefore described, containing three different forms of blanks, respectively, for use in the manufacture of horseshoes of the side-weighted, toe-weighted, and snow-shoe varieties.

3. A complex horseshoe-blank bar containing three forms of blanks in two rows, which are divisible longitudinally, substantially as described.

4. A complex horseshoe-blank bar containing two rows or lines of blanks, the blanks in one of said lines being all for side-weighted shoes and the blanks in the other line being in part for toe-weighted shoes and in part for still another form of shoe, substantially as described.

CHARLES HENRY PERKINS.

Witnesses:

R. W. COMSTOCK,
CHARLES R. STARK.